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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/502,698	02/11/2000	Shin-Ichi Funahashi	06501-056001	5541
26161	7590	04/09/2004	EXAMINER	
FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110			MERTZ, PREMA MARIA	
			ART UNIT	PAPER NUMBER

1646

DATE MAILED: 04/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action</b>	<b>Application No.</b> 09/502,698	<b>Applicant(s)</b> FUNAHASHI ET AL.	
	<b>Examiner</b> Prema M Mertz	<b>Art Unit</b> 1646	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY [check either a) or b)]**

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☒ A Notice of Appeal was filed on 22 March 2004. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b) ☐ they raise the issue of new matter (see Note below);
  - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_.

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☐ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 3 and 35-37.

Claim(s) withdrawn from consideration: 6-34.

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.
10. ☐ Other: \_\_\_\_\_

*Prema Mertz*  
Prema M Mertz  
Primary Examiner  
Art Unit: 1646

Continuation of 5. does NOT place the application in condition for allowance because: Applicants argue that the claimed polypeptides possess multiple PDZ domains and bind via the multiple PDZ domains to proteins having a hydrophobic amino acid region consisting of three amino acids represented by Thr/Ser-Xaa-Val at their C-terminus (PDZ domain-binding proteins). However, these PDZ domain-binding proteins are the transmembrane proteins which are reported to play a role in signal transduction, particularly in cell proliferation, neural transmission, apoptosis and malignant conversion. These are not the specific and substantial utilities of the claimed proteins but for the proteins that the instantly claimed proteins bind to. Therefore, since the listed activities are not for the claimed binding proteins but for the interacting PDZ binding transmembrane proteins, the instantly claimed proteins fail to meet the requirements for a specific and substantial utility. Furthermore, it is the position of the USPTO that tissue specific expression of a protein for use as a tissue marker is not a specific and substantial utility for the reasons set forth in the office action (page 3, 9/22/2003). Lastly, the scenario presented in Example 10 of the utility guidelines does not resemble that of the instant case because ligases are known to have a clear, well-defined utility of joining two polynucleotides together (ligases are commercially available in DNA cloning kits). The references recited by Applicants (Leibovici et al, 2000, and Niethammer et al. 1995, are representative of the functions for specific PDZ binding transmembrane proteins not for the instantly claimed proteins. The activities recited in the instant specification are not for the instantly claimed proteins but for PDZ binding transmembrane proteins. Therefore, the instantly claimed proteins do not meet the requirements of 35 USC 101 for a specific and substantial utility .